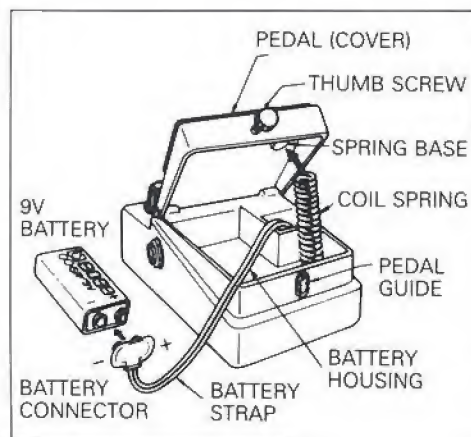


## BATTERY REPLACEMENT



### USE ONE 9-VOLT BATTERY

- Loosen the Screw of pedal to open it.
- Take out the battery from the Battery Housing and disconnect the Battery Strap.
- Replace with a new battery and connect the Battery Strap.
- Put the Coil Spring to the Spring Base and close the Pedal.
- \* Make sure that the Battery Strap is not caught in the Pedal or Coil Spring.
- Insert the screw into the Pedal Guide and firmly tighten the screw.

## SPECIFICATIONS

<b>Power</b>	9V Dry Battery × 1, AC adaptor (BOSS PSA Series)
<b>Current Draw</b>	45 mA to 60mA (9VDC)
<b>Controls</b>	Effect Level, Feedback Level, Time (Sampling/Delay)
<b>Others</b>	Mode Selector Switch, Pedal Switch (Normal/Effect Selector in Delay mode, Trigger Switch in Sampler mode) LED Indicator (= Battery Check Indicator)
<b>Jacks</b>	Input, Output, Trigger In, AC Adaptor (PSA Series)
<b>Sampling Time</b>	200ms (MIN) to 800ms (MAX)
<b>Delay Time</b>	50ms (MIN) to 800ms (MAX)
<b>Frequency Response</b>	Sampling/Delay sound: 40Hz to 7kHz ( $\pm 1$ dB) Direct Sound: 10 Hz to 60kHz ( $\pm 1$ dB)
<b>Residual Noise</b>	Sampling/Delay mode: -95dBm (IHF-A) Normal mode: -100dBm or less (IHF-A)
<b>Input Impedance</b>	1M $\Omega$ (FET input)
<b>Output Load Impedance</b>	10k $\Omega$ or more
<b>Dimensions</b>	70(W) × 55(H) × 125(D) mm/2 $\frac{3}{4}$ "(W) × 2 $\frac{1}{8}$ "(H) × 4 $\frac{1}{16}$ "(D)
<b>Weight</b>	450g/1lb

\* Specifications are subject to change without notice.

Printed in Japan '85 Feb E-3

## RADIO AND TELEVISION INTERFERENCE

**Warning** - This equipment has been verified to comply with the limits for a Class B computing device, pursuant to Subpart J, of Part 15, of FCC rules. Operation with non-certified or non-verified equipment is likely to result in interference to radio and TV reception.

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These rules are designed to provide reasonable protection against such a interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment on and off, the user is encouraged to try to correct the interference by the following measure:

- Disconnect other devices and their input/output cables one at a time. If the interference stops, it is caused by either the other device or its I/O cable.
- These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non Roland devices, contact the manufacturer or dealer for assistance.
- If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:
  - Turn the TV or radio antenna until the interferences stops.
  - Move the equipment to one side or the other of the TV or radio.
  - Move the equipment farther away from the TV or radio.
  - Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.)
  - Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV.

If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:

"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

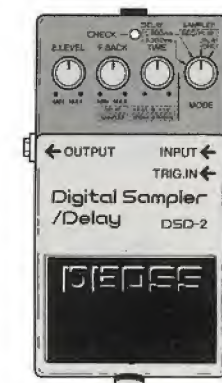
# BOSS DSD-2 Digital Sampler / Delay

## INSTRUCTIONS

### FEATURES

The BOSS DSD-2 is an effect unit that features both the sampler function (800ms digital recorder) and the delay function (50 to 800ms).

The Trigger In Jack can be used to sync the DSD-2 with a rhythm machine, or to sample a sound and use it as an external sound source, or to obtain an echo effect that perfectly syncs to the rhythm.



- Please read these instructions carefully for proper operating procedures for the BOSS DSD-2.

## NOTICE

- Please be sure to use the AC Adaptor BOSS PSA-120, 220 or 240 depending on the voltage system in your country. ACA-series can not be used, as the DSD-2 draws more current (45-60mA 9V DC) than usual compact effect units.
- The battery (one Dry Battery, 9V) will last for 30 minutes to 2 hours (manganese) or 5 to 10 hours (alkaline), depending on the conditions. The use of a BOSS PSA-Adaptor and alkaline battery is recommended for a longer time performance.
- Avoid using this unit in extreme heat or humidity, or where it may be affected by dust.

## CAUTIONS

- When the unit is not in use for a long period, remove the battery to prevent problems caused by the battery leakage.
- If the battery voltage drops, effect becomes vague or no sound is produced. To prevent that, replace the battery.
- Be sure to keep the battery securely connected even while using the AC Adaptor, then the unit will continue to operate even if the AC Adaptor cord comes out during performance.
- To avoid wasting the battery unplug the cord from the OUTPUT jack when the unit is not in use.

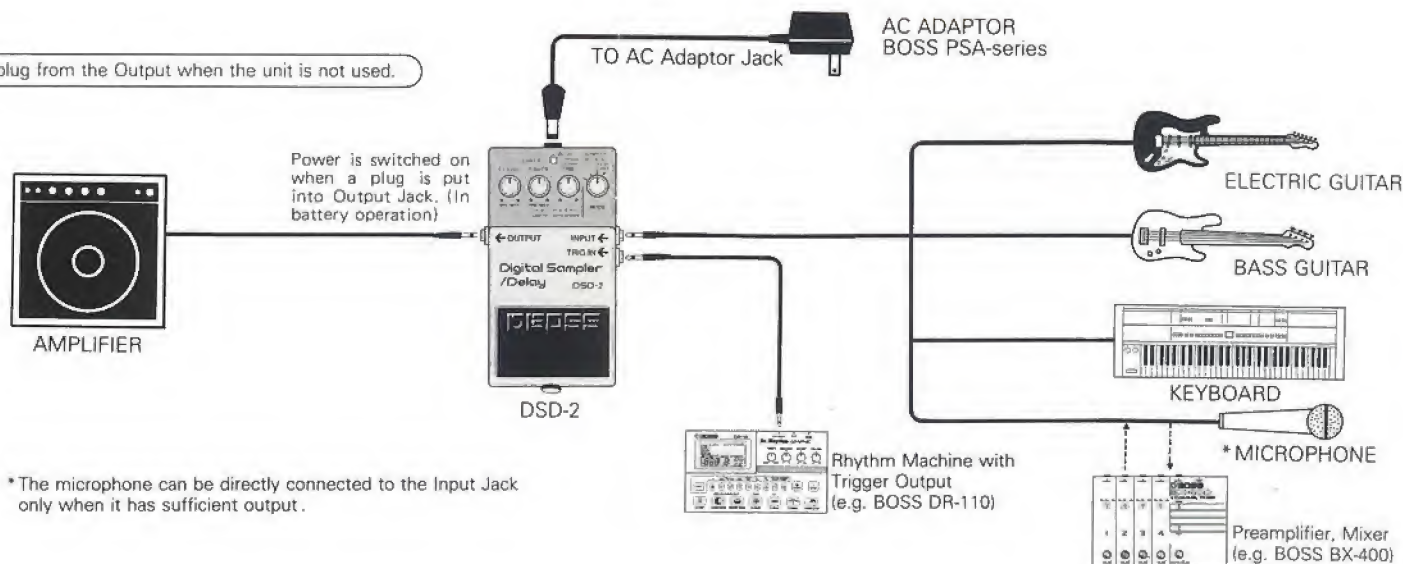
## AC ADAPTOR (OPTION)



- For AC operation, be sure to use the BOSS AC Adaptor PSA-120, 220 or 240 depending on the voltage system in your country, and never use one Adaptor for two units simultaneously.

## CONNECTING

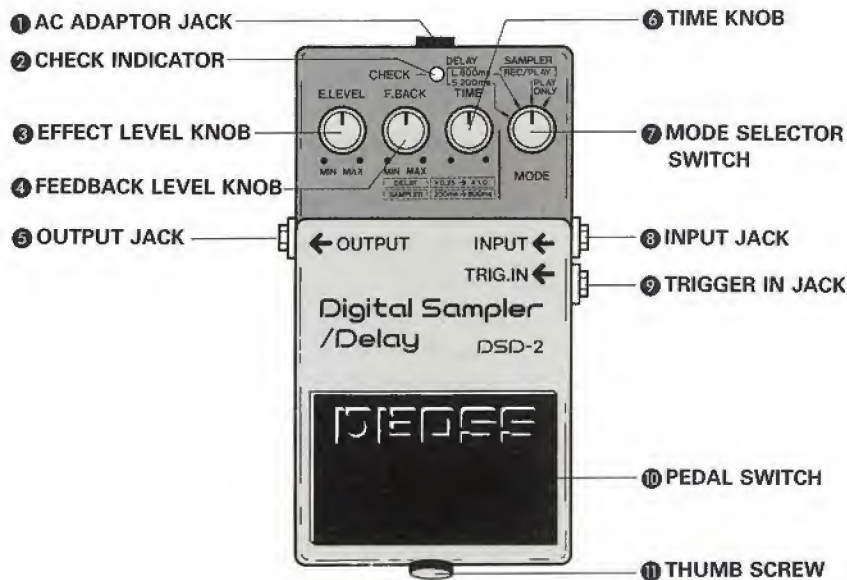
Be sure to take off connecting plug from the Output when the unit is not used.



\* The microphone can be directly connected to the Input Jack only when it has sufficient output.



## PANEL DESCRIPTION



### ⑤ OUTPUT JACK

This is to connect to the external amplifier. Direct and delay/sample sounds are mixed and sent out through this jack.

\* The Output Jack serves as a power switch, that is, the DSD-2 will be turned on by plug in a connection cord, and turned off by disconnecting it. (This applies only while the unit is operating on battery.)

### ⑥ TIME KNOB

#### [Delay Mode]

In this mode, the knob determines the delay time. Rotating it clockwise will make longer delay time. This knob actually changes the delay time set by the Mode Selector Switch from "× 0.25" to "× 1" continuously.

#### [Sampler Mode]

In this mode, the knob determines the sampling time from 200 to 800ms. Rotating this clockwise will make the time longer.

### ⑦ MODE SELECTOR SWITCH

Four modes are optional with this switch: two Delay modes and two Sampler modes as follows.

#### [Delay Modes]

At S the range is 200ms. By using the Time Knob the delay time can be changed continuously from 50 to 200ms.

At L the range is 800ms. The delay time can be changed continuously from 200ms to 800ms with the Time Knob.

#### [Sampler Modes]

REC/PLAY: The recorded sound is played and new sound is simultaneously recorded.

PLAY ONLY: The sound recorded in REC/PLAY mode is sustained and played.

\* The sound is sustained until the power is turned off or different mode is selected.

### ① AC ADAPTOR JACK

This is to connect an AC adaptor (BOSS PSA series).

Connecting the AC adaptor to this jack will turn the DSD-2 on. (While the AC Adaptor is connected, the Output Jack ⑤ does not work as ON/OFF switch.)

\* Please note that the BOSS ACA series AC adaptors do not match the DSD-2 because of rated current difference.

### ② CHECK INDICATOR

#### [Delay Mode]

This indicator lights up when the effect is turned on, and goes out when off.

#### [Sampler Mode]

The indicator lights up while the sampled sound is being recorded or played.

\* Check Indicator also serves as the power indicator. When the DC supply being fed is not enough for the DSD-2 to operate, the indicator fails to light.

### ③ EFFECT LEVEL KNOB

This knob is to adjust the level of the delay/sample sound. Rotating this knob clockwise increases the volume of effect sounds. At the MAX position the delay/sample sound level becomes equal to that of direct sound, and at the MIN position only the direct sound is heard.

### ④ FEEDBACK LEVEL KNOB

#### [Delay Mode]

In this mode, this knob decides how many times the delay sound is to be repeated. Rotating this knob clockwise increases the number. At the fully counterclockwise position single delay will be obtained.

#### [Sampler Mode]

In this mode, the knob should be set at the fully counterclockwise position. Rotating the knob clockwise mixes recorded sound with the sample sound and an effect like multitrack recording is obtained.

\* In the Sampler mode, recording or playing is started by pressing the pedal or feeding an external trigger signal through the Trigger In Jack.

\* If the pedal switch is kept depressed, the trigger is supplied continuously.

### ⑧ INPUT JACK

This is to connect an electric instrument, mike or the like.

\* If the microphone has sufficient output, it can be directly connected to the Input Jack. If not, use a mixer such as BOSS BX-400 and/or preamplifier.

### ⑨ TRIGGER IN JACK

This is to receive the signal sent from the Trigger Output of a rhythm machine.

### ⑩ PEDAL SWITCH

#### [Delay Mode]

In this mode, the pedal switch works to turn on or off the effect.

#### [Sampler Mode]

In this mode, the pedal switch works as a trigger (start) switch for recording or playing. If the pedal is kept depressed, recording or playing is continuously repeated.

• Adopting the FET switch, the DSD-2 is free from click noise.

### ⑪ THUMB SCREW

Loosen this screw to open the cover for battery replacement.

\* Do not remove the screw from the cover, or you may lose it.

## OPERATION

### [1] Delay Mode



1 Make all the necessary connections, then set the controls on the panel as shown left.



2 Press the Pedal if the Check indicator is off. Now effect is on. Dim or dark indicator means a poor or no power. Check the power supply, AC adaptor or battery (when not using AC adaptor).

\* The DSD-2 takes for about 5 seconds to begin outputting effect sound after the pedal has been pressed. This is because of the built-in muting circuit.



3 Select a delay time range with the Mode selector and set the Time Knob to the desired position.



4 With the Feedback Knob, set how many times the delay sound is to be repeated.

\* Oscillation may occur as you rotate the Feedback Knob clockwise.



5 Set the level of the delay sound with the Effect Level Knob.

\* At the MAX position, the volume of the delay sound becomes equal to the direct sound.

### [3] Application (Sync with programmable rhythm machine)

1 Connect the Trigger In Jack on the DSD-2 to the trigger output on the rhythm machine. (Other connections are the same as above.)



2 Set the controls on the panel as shown left, then enter the trigger positions into the rhythm machine. Now, you can hear the delay sound which perfectly syncs to the timing programmed in the rhythm machine. (For instance, if you enter quarter notes, the sound that is delayed precisely quarter note will be obtained.)



3 Set how many times the feedback is to be repeated and the level of the delay sound as you like.

\* By entering odd rhythms into the rhythm machine, you can enjoy irregular repetition of the echo effect. Also, the echo can be changed automatically by the patterns you have entered.

### [2] Sampler Mode



1 Make all the necessary connections, then set the controls on the panel as shown left.



2 The pedal switch serves as a recording start switch, so push and quickly release the pedal in time to the sound to be recorded. When the sampling time set with the Time Knob has been elapsed, recording stops automatically.

\* If you press the pedal too late, the beginning of the sound will be missed out, and if too early, silence will precede. Also, if you keep pressing the pedal longer than the set sampling time, recording/playing will be repeated, thereby the sound previously recorded will be erased.



3 Rotate the Feedback Knob fully clockwise and repeat the step 2 for overdubbing.



4 Set the Mode Selector Switch to the PLAY ONLY position and press the pedal switch, and the sound recorded in the REC/PLAY mode will be played. (It is also possible to play it by using the trigger signal from the rhythm machine.) When the recording is unsatisfactory, repeat the step 2.



5 By rotating the Time Knob, the pitch can be changed.

### Notes

\* Basically, the trigger cycle should be set within the maximum delay time, but if it happens to exceed it, it will sound like long delay sound.

• If the sound gets muddy or beat is noticed, change the tone color or slightly rotate the Time Knob counterclockwise.

• The DSD-2's rated input level at the higher frequency is lower than that at the lower frequency. So, when you are using the instrument with high sound range or high harmonic contents, the sound may be distorted. If this happens, lower the input level.